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Soliman

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[54] **SYSTEM AND METHOD FOR DETERMINING RECEIVED PILOT POWER AND PATH LOSS IN A CDMA COMMUNICATION SYSTEM**

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[52] **U.S. Cl.** **370/335**; 455/501; 455/63

[58] **Field of Search** 370/320, 335, 370/342, 332, 328, 500; 375/200; 455/422, 439, 501, 504, 505, 506, 63; 379/59, 60

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[57] **ABSTRACT**

A system and method for estimating the quality and path loss associated with a communications channel on the basis of the power of a pilot signal received by a communications receiver. The communications receiver measures a received signal power, and also makes a relative pilot strength measurement of a received pilot signal. The power of the pilot signal is then computed using the received signal power and the relative pilot strength measurement. An indication of channel quality based on the pilot signal power may be provided to a user of the communications receiver. Path loss of a communication channel between a base station and a remote site station is also estimated. The base station also transmits an indication of the power at which the pilot signal was transmitted. An estimate of the path loss is then made by determining the difference between the indicated power of the transmitted pilot signal and the received pilot signal power.

27 Claims, 6 Drawing Sheets